

WHAT IS CLAIMED IS:

1. A drying device for drying printed material moving past the drying device, the drying device comprising:

at least one nozzle for transmitting a drying fluid, the nozzle having an outlet directed so that the drying fluid is propelled toward the printed material moving past the nozzle outlet, wherein the nozzle is shaped and positioned so that the drying fluid would normally develop a laminar flow through the outlet of the nozzle;

a device at the outlet of the nozzle, shaped and positioned for creating a turbulent flux of the drying fluid and breaking up the laminar flow as it exits the nozzle outlet; and

an exhaust conduit positioned and operable for receiving drying fluid after it has blown on the printed material.

2. The drying device of claim 1, comprising a plurality of the nozzles arrayed along a path of the printed material moving past each of the nozzle outlets.

3. The drying device of claim 2, further comprising an enclosure in which the nozzle outlets are disposed;

guiding devices for guiding the printed material through the enclosed space and past the nozzle outlets; and

the exhaust device also having an inlet in the enclosure for exhausting the drying fluid from the enclosure after the fluid has acted on the printed material.

4. The drying device of claim 3, further comprising a heating element positioned for heating the drying fluid before it contacts the printed material.

5. The drying device of claim 1, wherein the nozzles are oriented so that the outlets thereof are oriented perpendicular to and close to the surface of the printed material moving past.

6. The drying device of claim 1, wherein the nozzles are oriented so that the outlets thereof are oriented inclined relative to and close to the surface of the printed material moving past.

7. The drying device of claim 3, wherein the exhaust device inlet is located between two successive nozzles along the path of the printed material past the nozzle outlets.

8. The drying device of claim 7, wherein the exhaust device inlet is located equidistant between two successive nozzles.

9. The drying device of claim 1, wherein the device at the outlet of the nozzle is a mechanical device.

10. The drying device of claim 1, wherein the nozzle has sides defining the nozzle outlet and the device for creating the turbulent flux is installed in the nozzle at an extremity of at least one of the sides of the nozzle outlet.

11. The drying device of claim 10, wherein the device for creating turbulent flux comprises a notched or crenelated structure.

12. The drying device of claim 11, wherein the notched or crenelated structure has a direction in which it extends which is parallel to the side of the nozzle

outlet at which the structure is located and extends along that side of the nozzle outlet.

13. The drying device of claim 12, wherein the notched or crenelated structure is at the nozzle outlet.

14. The drying device of claim 13, wherein the notched or crenelated structure is disposed at a downstream side of the nozzle outlet which is downstream with respect to the path of the printed material past the nozzle outlet and relative to the moving direction of the printed material past the nozzle outlet.

15. The drying device of claim 11, wherein the device for transforming the laminar flux into a turbulent flux comprises a piece located on at least one side of the nozzle outlet and the piece having the notched or crenelated structure thereon.

16. The drying device of claim 15, wherein the piece is so shaped and positioned that the notched or crenelated structure has an angle of between 0° to 90° relative to the side of the nozzle outlet.